

Applicant : Christine Leib-M"sch et al.
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Attorney's Docket No.: 10737-006001 / P13419-DzB/la

Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously presented) A Retroviral expression vector containing at least the following elements in functional assembly:
 - (a) DNA sequences for packaging of the vector RNA and for cell-specific expression of proteins or peptides encoded by heterologous DNA nucleotide sequences;
 - (b) one or more DNA nucleotide sequences encoding a protein or peptide wherein said DNA sequences for the cell-specific expression contain a cell-specifically controllable promoter region from a human endogenous retroviral DNA nucleotide sequence (HERV), wherein said promoter region contains a TATA box and recognition and binding sites for regulatory proteins.
2. (Currently amended) The expression vector according to claim 1, wherein said DNA sequences for cell-specific expression ~~are derived~~ contain regions from the LTR region or from the non-translated region between the 5' LTR and the gag region of HERV's.
3. (Currently amended) The vector according to claim 1, wherein the whole LTR region, the U3 region, or the R and U3 regions ~~are derived~~ contain regions from a human endogenous retroviral nucleotide sequence.
4. (Previously presented) The vector according to claim 1, wherein said one or more nucleotide sequences encoding a protein or are selected from the group consisting of marker genes, therapeutic genes, antiviral genes, anti-tumor genes, and cytokine genes.

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5. (Currently amended) The vector according to claim 1, wherein said cell-specifically controllable promoter region ~~is derived~~ contains a region from the LTR region of a cell-specifically expressed endogenous human retroviral nucleotide sequence.

6. (Previously presented) The vector according to claim 1, wherein said human endogenous retroviral cell-specifically controllable promoter sequences are selected from one or more promoter sequences of HERV families of the group consisting of HERV-K, HERV-H, HERV-E, HERV-L, HERV-T, HERV-R, HERV-I, HERV-P, ERV9, and HERV-W.

7. (Cancelled).

8. (Previously presented) The vector according to claim 1, wherein said recognition and binding sites for regulatory proteins comprise the GC box, the CAAT box, enhancer sequences and repressor sequences as well as hormone responsive sequence motifs or wherein, additional recognition and binding sites for regulatory proteins from the LTR region of exogenous retroviruses, or from cellular genes, or from both are comprised.

9. (Previously presented) The vector according to claim 1, wherein said vector is a promoter conversion vector comprising a 5' LTR portion having the structure U3-R-U5, one or more sequences selected from coding and non-coding sequences, and a 3' LTR portion comprising a U3 region which is partially or completely deleted wherein the deleted U3 portion is replaced by a cell-specifically controllable promoter region from a HERV LTR sequence, followed by the R-U5 region.

10. (Previously presented) The mRNA or RNA of a retroviral expression vector according to claim 1.

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11. (Currently amended) **[[A]] An isolated prokaryotic cell or [[a]] eukaryotic cell containing a retroviral expression vector according to claim 1.**
12. (Previously presented) **[[A]] An isolated eukaryotic cell containing a retroviral expression vector according to claim 1 in an integrated form.**
13. (Withdrawn) Use of a cell-specifically controllable promoter region from a human endogenous retroviral DNA nucleotide sequence for the regulation of the expression of foreign genes in retroviral expression vectors, preferably in ProCon vectors.
14. (Withdrawn) Use of an expression vector according to claim 1 for the expression of foreign genes in gene therapy.
15. (Withdrawn) Virion containing a retroviral expression vector RNA obtained by transcription of an expression vector DNA according to claim 1.
16. (Withdrawn) Method for the preparation of a virion according to claim 15 for the introduction of one or more nucleotide sequences encoding a protein or peptide wherein said retroviral expression vector according to one or more of the preceding claims is introduced into a suitable packaging cell line under such conditions that the virion is formed and released by the packaging cell line.
17. (Withdrawn) Method for the introduction of nucleotide sequences encoding one or more proteins or peptides into an eukaryotic cell wherein said cell is infected by a virion according to claim 15 under such conditions that the nucleotide sequences encoding the protein or peptide is inserted into the chromosomal DNA of the eukaryotic cell.

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18. (Withdrawn) Method according to claim 17, wherein the eukaryotic cell is a mammalian cell.

19. (Withdrawn) Process according to claim 18, wherein the mammalian cell is a human cell.

20. (Previously presented) The retroviral vector system comprising a retroviral expression vector according to claim 1 and a packaging cell line comprising at least one retroviral or recombinant retroviral construct encoding for the packaging proteins of the retroviral expression vector.

21. (Previously presented) The retroviral vector system according to claim 20, wherein the packaging cell line comprises retroviral or recombinant retroviral constructs encoding for such retroviral proteins which are not encoded by the retroviral expression vector.

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